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In national Application No

PCT/US 03/0517356

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01L3/10 G01L5/00 G01M13/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01L G01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 19, 5 June 2001 (2001-06-05) & JP 2001 033322 A (NTN CORP), 9 February 2001 (2001-02-09) abstract ---	1-29
Y	US 6 370 967 B1 (SATOH DAISUKE ET AL) 16 April 2002 (2002-04-16) the whole document ---	1-29
A	US 6 289 748 B1 (RODRIGUEZ LORENZO GUADALUPE ET AL) 18 September 2001 (2001-09-18) column 3 -column 4; figures 1-7 ---	1-29
	-/-	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

9 October 2003

Date of mailing of the international search report

16/10/2003

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## INTERNATIONAL SEARCH REPORT

Int'l Application No  
PCT/US 03A 50

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 503 714 A (WINTERHOFF HORST) 12 March 1985 (1985-03-12) abstract; figure 2 -----	1-29

## INTERNATIONAL SEARCH REPORT

Information on patent family members

Int'l Application No  
PCT/US 03/0050

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
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US 6370967	B1 16-04-2002	JP	11132877 A	21-05-1999
US 6289748	B1 18-09-2001	DE	10057468 A1	07-06-2001
US 4503714	A 12-03-1985	DE EP JP	3206008 C1 0087002 A2 58151533 A	25-08-1983 31-08-1983 08-09-1983